

## CLAIMS

What is claimed is:

1. A diagram system comprising:  
a diagram that stores at least one shape element; and,  
an application program interface that includes a control that facilitates access to the diagram, the control maintaining state information associated with the diagram.
2. The system of claim 1, the state information comprising at least one of selection, zoom and scroll position.
3. The system of claim 1, the control captures operating system events.
4. The system of claim 3, the control providing at least some of the operating system events to the shape element.
5. The system of claim 1, the control rerouting at least one of paint, keyboard and mouse events to at least one of the diagram and the shape element.
6. The system of claim 1, the diagram and the shape element responsible for painting themselves.
7. The system of claim 1, the diagram and/or the shape element being responsible for responding to a user interaction.
8. The system of claim 1, the shape element being based, at least in part, upon a model element class.
9. The system of claim 1, the diagram being based, at least in part, upon a node shape that has a bounds property which defines its location and size, the node shape derived from the shape element.

10. The system of claim 1, at least one shape element having a child shape element.
11. The system of claim 1, the shape element derived from a presentation element.
12. The system of claim 1, the shape element comprising at least one of a geometry property, a style set property and a shape fields property.
13. The system of claim 1, the diagram having a graph object employed for hittesting.
14. The system of claim 1, the shape element being control-less.
15. A method that facilitates access to a diagram comprising:  
employing a control to access a diagram; and,  
storing at least one shape element contained by the diagram.
16. The method of claim 15, the control maintaining state information associated with the diagram.
17. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 15.
18. A data packet transmitted between two or more computer components that facilitates diagramming, the data packet comprising:  
a data field comprising a diagram, the diagram comprising at least one shape element, the diagram and/or the shape element being responsible for painting themselves and responding to a user interaction.
19. A computer readable medium storing computer executable components of a diagram system comprising:  
a diagram component that stores at least one shape element; and,

an application program interface component that includes a control that facilitates access to the diagram, the control maintaining state information associated with the diagram.

20. A diagram system comprising:

means for storing at least one shape element in a diagram, the diagram and/or the shape element being responsible for painting themselves and responding to a user interaction;

means for accessing the diagram; and,

means for maintaining state information associated with the diagram.